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AMERICAN RAILWAYS JUSTIFIED BY RESULTS

BY SLASON THOMPSON

Ye shall know them by their fruits. Do men gather grapes of thorns, or figs of thistles?—MATTHEW vii. 16.

WHILE nothing in this world, except misrepresenting the facts respecting American railways, is quite so easy as lying, that is no reason why the truth about them should be befogged through such a medium of intelligent criticism as THE NORTH AMERICAN REVIEW. If Professor W. Jett Lauck's comprehensive and seemingly fair treatment of "The Plight of the Railways" in its January issue had appeared in one of our magazines that cater to the prejudices of the ignorant, it would have excited only surprise by its moderation. But for the readers of the REVIEW, something more than a superficial familiarity with a subject which the editor truly says is "undoubtedly the most vital practical problem now pressing for resolution" would seem to be a first requisite.

Therefore, calling in such Knowledge as is buttressed by facts, Reason, Truth, and Freedom from undue bias, let us consider the state of American railways.

To begin with, let us frankly acknowledge that they are what they are because they are American—bone of our bone, sinew of our sinew. American railways were originally built on faith and financed on optimism out of the coffers of foreign money-lenders, many of whom have never realized on their investments. In 1850, when the railway mileage in the United States was less than 10,000 miles, the wealth of the country was officially estimated at a little over seven billions (\$7,135,780,000); now, with 250,000 miles of railway, the last official estimate places the wealth at over \$125,000,000,000.

It is impossible to say how much of this bewildering increase is due to the railways, just as it is impossible to imagine any such enormous expansion of national wealth without those railways. To the remotest confines of this Republic they have been the heralds of the dawn of progress and prosperity. Within our generation, or, to be more specific, since 1870, we have seen Oklahoma converted from a trackless buffalo range into a thriving commonwealth by the building of 6,100 miles of railway, mostly on borrowed capital. Oklahoma furnished the opportunity, the railways did the rest.

Throughout the history of American railways what is now called "stock watering" was as necessary and legitimate as rain in Kansas. Every railway extension, except those between thickly settled communities, was a venture into the unknown. Paid-up stock was issued at 25, 50, or 75 cents on the dollar, according as the risk was slight or great. The risk was always present, the uncertainty being as to the extent of the risk and the promise of profit. Even bonds bearing from six to eight per cent. had to be garnished with stock bonuses to command their face value. Backed by all the inducements that selfish promoters and far-sighted projectors could offer, the financing and building of American railways has been one continuous hard scrabble, with few intermissions of easy money and years of undiluted prosperity.

In his article in the January REVIEW, Professor Lauck seeks to differentiate between the operating and financial record of the railways, as though the two were not so inextricably commingled as to defy such separation. The two have gone along hand in hand for over eighty years, and nothing short of government ownership can divorce them. He declares that "an economic crime has been perpetrated by the capitalization of the actual and potential earnings arising from increased productive efficiency." This characterization is not original with Professor Lauck. It has been declared in the lecture-rooms of most of our colleges, and the economic theory of which it is the antithesis has been accepted with disastrous consequences in Europe, finding its most glorious exemplification in the \$277,000 per mile capitalization of British railways.

It is pertinent to inquire, since when has it become an economic or any other sort of a crime to capitalize "in-

creased productive efficiency"? It is not only not a crime, but one of the first and most essential laws of human progress. What Professor Lauck denominates an "economic crime" is nothing other than the American railway practice of "one dollar for dividends and one dollar for improvements" out of earnings. Frequently with no dollar for dividends there has been the dollar or some part of it for improvements. At every stage in the development of our railways this has been the practice, that through good and bad times has kept American railways abreast of the exacting demands made upon them by the American people. The practical effect of this "economic crime" may be graphically illustrated in the following comparison with the per-mile capitalization in the countries that have followed the opposite policy:

	Capital or cost per mile.
UNITED STATES.....	\$64,000
Russian Empire.....	80,902
German Empire.....	115,000
Switzerland.....	117,000
Austria.....	118,000
Italy.....	127,000
France.....	144,000
Belgium.....	188,000
United Kingdom.....	277,345

Moreover, this "economic crime" that has given us the lowest average capitalized railways in the world, with a carrying capacity greater than all the railways of Europe combined, has been perpetrated with labor costing from two to three times as much as that in any other country named.

In the realm of enlightened reason any such achievement would seem entitled to recognition as an economic triumph or miracle.

Nor let any one suppose that this economic marvel has been achieved at the expense of exorbitant rates to the American people. The railway projectors and builders found travelers in the Eastern States paying *six cents a mile* by stage. By 1869 the New York Central was carrying them at 2.031 cents per mile, and last year it carried 48,018,008 passengers, an average of 36.67 miles, at an average cost of 1.764 cents per mile.

Before the age of railways it cost the American farmer twenty-five cents or more to move a ton of freight one mile.

The first charter to a railway in Pennsylvania in 1823 provided for a seven-cent rate per ton mile. By 1869 the New York Central was carrying freight at 2.527 cents per ton mile. Last year it carried 46,803,761 tons, an average of 199.96 miles, at an average cost of 6.28 *mills* per mile.

These figures are particularly pertinent and illuminating in connection with Professor Lauck's citation of a statement before the Interstate Commerce Commission "that a total of \$93,034,026 of stock had been floated by this company [presumably the New York Central] during the period 1870-1910, for which not a cent was added to the value or earning capacity of the property."

Not a cent added to the value or earning capacity of the New York Central in forty years! It is evident that Professor Lauck has not the faintest conception of the process by which the New York Central has been evolved from the seven independent companies between Albany and Niagara Falls organized, under the title of the New York Central Railroad Company in 1853, into one of the great systems of the United States. As the bald statement to which he has fallen an innocent victim has doubtless been accepted as true by thousands to whom the data for its refutation is not accessible, the facts may be briefly summarized from official and quasi-official sources:

Prior to 1869 the New York Central and the Hudson River Railroad were separate properties connecting at Albany and forming a continuous route to Buffalo. In 1861 they operated 804 miles of line, of which 700 miles was owned and 104 was leased. Including auxiliary track and siding, they had a total of 1,298 miles of all tracks, 276 locomotives, 358 passenger-cars, and 3,412 freight-cars. Their combined capitalization amounted to \$51,501,471, of which \$27,751,466 was stock, and \$23,750,005 was funded debt. Between 1861 and 1870 the annual surpluses after paying interest and dividends amounted to over \$29,000,000. At the time of the consolidation in 1869 the capital stock was increased to \$89,428,330, and the funded debt was reduced to \$13,681,807, making a total of \$103,110,137. It was this transaction in which stock in the new company was issued to take up \$23,000,000 outstanding certificates and also the certificates issued to the stockholders of the two merged companies under the terms of the consolidation act, that has been referred to as "a stock dividend of one hundred per

cent., equal to \$44,428,330." It is doubtful if it more than capitalized the sum of the expenditures out of operating expenses and net income for improvements and betterments upon the various properties during the forty years preceding their final consolidation.

This brings us to 1870—the beginning of that "period 1870–1910" when, according to Professor Lauck's citation, "\$93,034,026 of stock was floated by this company, for which not a cent was added to the value or earning capacity of the property." Happily from this point the facts are easily ascertainable and they can be summarized so as to tell their own story. Here they are:

THE NEW YORK CENTRAL IN 1870 AND 1910.

	1870	1910
Mileage—owned	737.7	805.4
" leased	104.4	2,782.3
Total operated miles.....	842.1	3,587.7
All tracks (miles).....	1,522.0	(1) 8,643.0
Locomotives	400	2,323
Passenger-cars	445	2,390
Freight-cars	9,026	69,713
Cost of road.....	\$48,130,461	\$167,635,345
Cost of equipment.....	11,635,222	84,220,702
Undistributed		384,208
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Total	\$59,765,683	\$252,240,255
Capital stock	\$89,428,330	\$222,729,300
Funded and secured debt.....	13,681,807	268,592,426
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Total	\$103,110,137	\$491,321,726
Deduct—		
Book value system securities.....		\$134,670,396
Other permanent investments.....		7,875,253
Working assets	(2)	89,556,046
All other deferred debts.....		51,725,570
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Total deductions (assets).....		\$283,827,265
Net capital charge against property.....	\$103,110,137	\$207,494,462
Working and accrued liabilities.....		29,204,990
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Total net capital and liabilities.....		\$236,699,452

(1) Of these tracks 3,029 miles were owned and 5,614 were leased.

(2) The details for this item were not reported to the Commission in 1910. In 1911 they were cash, \$20,708,255; securities issued or assumed, \$10,745; marketable securities, \$28,197,330; accounts receivable, \$40,590,287; materials and supplies, \$10,015,887. Total, \$99,522,504.

It is evident from this statement that the New York Central has more than sufficient property to represent every cent of capital stock issued either before or since 1870. The appraisal of its 3,029 miles of track and terminal properties and leased mileage is impracticable, but from the known cost of locomotives (\$15,000 to \$40,000 each), passenger-cars (\$8,000 to \$10,000), and freight-cars (\$800 to \$1,200), the \$84,220,702 reported as cost of equipment is probably far below its actual cost.

So much for the value of the property. Now as to its earning capacity. This is shown in the following statement of performance:

PUBLIC SERVICE OF THE NEW YORK CENTRAL IN 1870 AND 1910		
	1870	1910
Passengers carried	7,044,946	46,887,133
“ “ (one mile)....	321,365,953	1,708,285,825
Average journey	45.3 miles	36.43 miles
Passenger revenue	\$6,738,592	\$29,727,748
Average receipts per passenger mile	2.097 cts.	1.740 cts.
Freight tons carried.....	4,122,000	46,642,539
“ “ (one mile).....	769,087,777	9,103,015,567
Average haul	186 miles	195 miles
Freight revenue	\$14,489,216	\$56,871,058
Average receipts per ton mile....	1.884 cts.	6.25 mills

Here is a record of earning capacity achieved by the combination of financial ability and operating efficiency that might challenge credibility were the facts not accessible. With an increase of only 327 per cent. in the investment accompanied by an increase of only 130 per cent. in capital liability pertaining to this property, there is shown an increase of 432 per cent. in passenger traffic and over 1,085 per cent. in freight traffic. But more wonderful still is the fact that this amazing increase has been attended by a reduction of twenty per cent. in the average receipts per passenger mile, and of over sixty-six per cent. in the average receipts per ton mile.

If the average passenger fare on the New York Central at the close of the period 1870-1910 had been the same as at the beginning, the passenger revenues in 1910 would have been \$35,822,000, instead of \$29,727,748, as they were; and had the freight-rates been the same in 1910 as in 1870, the freight revenues in 1910 would have been \$171,500,802, instead of \$56,871,058, as they were.

Thus the application of sound American financial principles and American operating efficiency to this property saved over \$120,000,000 to the travelers and shippers on the New York Central in 1910, compared with what they would have had to pay under the transportation conditions of 1870.

And this marvel has been accomplished in the face of advancing cost in everything entering into production of transportation.

In 1870 the New York Central paid \$168,975 taxes on its earnings; in 1910 its tax bill was \$4,526,555, or more than two-thirds as much as its entire passenger revenues in 1870. This tax alone is a convincing certificate that the property of the New York Central is approximately worth \$450,000,000. Its system subsidiaries, the Lake Shore and the Michigan Central (not included in the preceding statements) together in 1910 paid \$2,738,436 taxes. Thus the three corporations represent a taxable valuation of over \$725,000,000, on the theory that property is taxed one per cent. on its full value as is the case in New York State.

I have gone into these details of the New York Central because they are typical of the financial process and progress that has given to the United States the lowest railway capitalization and freight-rates in the world. This story could be duplicated with a dozen others of the leading systems. Even where the results have not been so fortunate, the American system of turning back a substantial percentage of income into the property has been of inestimable national advantage in maintaining transportation abreast of traffic demands without increasing capital charges. In disapproving of this policy Professor Lauck allies himself with the British and Continental theorists against such recognized railway economists as W. M. Acworth and C. Colson, the highest British and French authorities.

The wisdom of this practice was also recognized by Professor Henry C. Adams, formerly Statistician to the Interstate Commerce Commission in his report for 1901, when, in discussing the extraordinary percentages devoted to maintenance of way and equipment that year, he said:

The important fact to be read from these comparisons is that the railways of this country are making use of these years of prosperity so to perfect their roadway and equipment as to enable them to decrease this class of expenditures should business of the country be again subjected to

general depression. This use of money creates for the railways an available reserve against hard times as truly as though it existed in the form of cash or in profitable investments.

Professor Lauck is singularly unfortunate when he turns his attention to the capital obligations of the railways as a whole. Here what is doubtless a printer's slip makes him say that "during the decade 1901-1910 the total capitalization of the railways of the United States was increased \$7,728,000,000 or 57.6." This is only a billion more than the official figures show. For the years in question these were:

	Gross Ry. Capital
1910	\$18,417,132,238
1901	11,688,147,091
Increase	\$6,728,985,147

As a matter of fact this covers only nine years, and not a decade. The percentage, however, is correct, although the whole intention is wrong and misleading. The actual capitalization of the railways outstanding in the hands of the public in 1910 upon which they were entitled to earn a reasonable return was only \$4,790,591,329 more than in 1900, as the following official figures show:

	Net Railway Capital
1910	\$14,338,575,940
1900	9,547,984,611
Increase in decade	\$4,790,591,329

In the meantime railway mileage had increased from 192,941 to 240,438, or 47,497 miles, and all tracks increased from 258,784 to 342,351, or 83,567 miles. The net result of this increase of capital is shown in an increase from \$36,904 per mile of track in 1900 to \$41,888 in 1910. The difference between these sums is represented in the millions expended on locomotives, which during the decade increased over one hundred per cent. in weight; in freight-cars which increased ninety per cent. in capacity; in more costly passenger and postal cars; in heavier rails, stronger bridges, better ballast, elevated tracks, abolition of grade crossings, installation of 60,000 miles of block signals, the electrification of terminals, and the replacing of outgrown stations with expensive modern structures throughout the republic. None of these things add to the physical mileage of the railways, but dur-

ing the decade in question they necessitated the expenditure of billions of capital either borrowed or appropriated out of surplus income.

That this expenditure was urgent and unavoidable is proved by the fact that during the same decade passenger traffic increased over one hundred per cent. and freight traffic over eighty per cent. By 1907 the facilities of the railways had been overtaken by the traffic, and only the recession in business since has enabled them to meet the pressing transportation requirements of the American people.

But Professor Lauck is not satisfied with overstating the capitalization of the railways; he reiterates the exploded misstatement about excessive dividends. These, he says, were \$159,000,000 greater in 1910 than in 1900, and that the dividends paid during the past fiscal year exceeded \$400,000,000. The reports of the Interstate Commerce Commission show that the net dividends paid in 1910 were only \$293,836,863 against \$118,624,409 paid in 1900, an increase of \$175,212,454. But the same authority shows that \$86,465,005 of this increase was "declared out of surplus." This reduced the net dividends from current income, plus \$78,442,027 "clear income from investments," to \$207,371,858. As for the statement that over \$400,000,000 was paid in dividends during the past fiscal year, this rests on the official preliminary abstract of statistics for the year to June, 1912, in which it is stated that "the amount of dividends declared during the year (by both operating and non-operating companies) was \$400,432,752." In the condensed income account accompanying this abstract, which presumably Professor Lauck did not study, it appears that this lump sum was made up as follows:

OPERATING COMPANIES		
Dividends declared from	current income.....	\$246,372,011
" " "	surplus	100,433,571
NON-OPERATING COMPANIES		
Dividends declared from	current income.....	37,556,473
" " "	surplus	15,486,374
Total		\$399,848,429

Dividends of non-operating roads are paid out of rentals received from operating roads.

The slight variance between the text and the table is probably due to rectification in one and not the other in

preparation for the press. But in neither is there any intimation of the deduction for the "dividends receivable by railways from railway stock owned or controlled," as was done in 1910 when it amounted to \$111,828,500. As this other income amounted to \$262,107,369 in 1912 against \$252,219,946, the deduction on this account undoubtedly should be larger last year than for 1910. So from this source (say \$112,000,000) and from surplus as above, we have a total of \$227,919,945 that did not come out of operating income at all to be deducted from the duplicated dividend figures of Professor Lauck's analysis. It is passing strange that statements that melt in the face of elementary school arithmetic continue to be paraded in official abstracts before the wondering eyes of the American people.

Nor is Professor Lauck much happier when he takes up the relation of railway wages to railway revenues. He says that during the decade 1901-1911 "the proportion of operating revenues paid to labor actually engaged in conducting transportation—enginemen, trainmen, switchmen, and stationmen—has generally *tended to decrease*." Let us see what are the facts. The reports of the Interstate Commerce Commission afford these comparisons:

COMPENSATION PAID LABOR ACTUALLY ENGAGED IN CONDUCTING TRANSPORTATION 1901 AND 1911

	Pay in 1901 (Thousands)	Pay in 1911 (Thousands)
Station Agents.....	\$19,239	\$27,203
Other Station men.....	47,496	88,926
Enginemen	53,353	91,323
Firemen	30,941	55,626
Conductors	32,352	59,716
Other trainmen	51,646	109,664
Telegraph operators and despatchers.....	17,152	32,348
	<hr/>	<hr/>
	\$252,179	\$464,806
Proportion of operating revenues.....	15.88	16.66

Had the employees of switching and terminal companies been included in 1911, as in 1901, the proportion of the pay of these seven classes to revenues would have been over seventeen per cent. In 1912, when the increase of pay made in 1910 was in full effect, the compensation of these seven classes rose to \$516,892,000, or 18.42 per cent. of the gross revenues—an increase of sixteen per cent. over the proportion in 1901. None of these comparisons include the recent

advances in the scale of employees directly engaged in conducting transportation.

In another paragraph Professor Lauck finds, as he says, that though revenue train mile costs have increased, this is more than offset by heavier trains and other economies, and in support of this he cites that whereas the operated-train cost in 1901 was \$1.12 compared to \$1.72 of operating revenue, in 1912 the figures were \$1.59 and \$2.30 respectively. From this he concludes that the gain in gross was sufficient to produce "an increase in net revenue of ten cents per revenue train mile." But between 1901 and 1912 taxes increased from 5.5 cents to 9.8 cents per train mile, reducing the apparent increase of 10 cents to 5.7 cents. Back of the increased performance per train mile is the increase of \$5,526,058,388 in net investment between 1901 and 1911 (official figures for 1912 not yet available). Computed on a five-per-cent. interest basis, this would figure out a deficit for 1912. Therefore, in the following statement the return on capital for both years is computed on a four-per-cent. basis:

	RAILWAY REVENUE AND EXPENSE PER REVENUE TRAIN MILE			
	1900		1912	
Operating revenues		\$1.72.9		\$2.30.2
Operating expenses.....	\$1.12.2		\$1.59.5	
Taxes	05.5		09.8	
Interest on net capital @ 4%.....	41.2	1.59.0	.49.2	2.18.5
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Net revenue13.9		.11.7
Net revenue per train mile 1912 less than 1900				.2.2

Now 2.2 cents per revenue train mile represents over \$27,000,000. It is common knowledge that money for railway investment commands over one-half per cent. more now than it did in 1900, and is being borrowed at five and six per cent. Even at half of one per cent. this would raise the per train mile cost by 6.1 cents, or over \$73,000,000. Deducted from the 11.7 cents margin, it would leave only 5.6 cents, or \$68,768,000 margin for additions and betterments, other reserves and surplus. If Professor Lauck thinks that this is a sufficient or safe working balance on a business of over \$3,000,000,000 annually, he will find few practical financiers to agree with him.

It is impossible to follow Professor Lauck in his discussion of what the railways have lost in underwriting commissions, or "might have saved" had they "sold their bonds

in the open market.” With most of the companies it has been a case of “ woodchuck or no meat.” It is a sounder proposition to pay \$40,000,000 for floating \$810,000,000 four-and-one-half per cent. twenty-year bonds at ninety-seven per cent. than to sell the same quantity of five-per-cent. twenty-year bonds in the open at par, or even 102. In the markets of the world borrowers seldom make their own terms, and it has been more than half a decade since the railways have been able to place loans to advantage. The hundreds of millions of short-term notes outstanding is significant of their sore plight in this respect. On January 14th, Cook County, one of the wealthiest municipalities in the world, was greatly elated to place in open competition \$1,000,000 four-per-cent. bonds at \$985,110.

To one sentence in Professor Lauck’s article I am sure no reasonable man will take exception. “ Due profits and liberal returns.” says he, “ should be assured to the elements of risk and foresight in the development of transportation facilities.” If they are not, the industry upon which all other industries depend will languish and decay, and the broken reed upon which all industries and commerce lean so heavily will pierce the hand of misinformed confidence.

SLASON THOMPSON.